WE CLAIM:

1. An energy management device for managing the flow of energy in an energy distribution system, said energy management device for use in an energy management architecture for managing said energy distribution system, said energy management architecture comprising a network, said energy management device comprising:

a network interface operative to couple said energy management device with said network;

an energy distribution system interface operative to couple said energy management device with said energy distribution system, said energy management device further operative to measure at least one energy management quantity via said energy distribution system interface;

a processor coupled with said network interface and said energy distribution system interface and operative to process said at least one energy management quantity to manage the flow of electrical energy; and

wherein said network interface is further operative to incrementally receive one of a power management command and power management data encoded as an XML document from said network, said XML document being received as a plurality of segments, wherein said network interface is capable of processing at least one received of said plurality of segments and extracting said one of said power management command and power management data therefrom prior to receiving all of said plurality of segments.

2. The energy management device of Claim 1 further comprising a display.

3. The energy management device of Claim 1 where said XML document is encoded into at least one of base64 format, Unicode UTF-8 format, Unicode UTF-16 format, ASCII and Latin encoding format before said network interface facilitates transmission over said network.

4. The energy management device of Claim 1 where said XML document is encrypted, said network interface further operative to decrypt each of said plurality of segments as they are received.

5. The energy management device of Claim 1 where said XML document is compressed, said network interface further operative to decompress each of said plurality of segments as they are received.

6. The energy management device of Claim 1 where said XML document is authenticatable, said network interface operative to authenticate each of said plurality of segments as they are received.

7. The energy management device of Claim 1 where said plurality of segments are transferred using at least one of SMTP, MIME and HTTP protocols.

8. The energy management device of Claim 1 where said XML document further comprises at least one of a SOAP and wireless binary XML protocol.

9. The energy management device of Claim 1 where said one of a power management command and power management data further comprises data based on at least one of load profile data, energy data, power quality data, an alert message, status information and energy management configuration information, price, cost, temperature.

10. The energy management device of Claim 1 where said at least one energy management device comprises at least one of relay, electric meter, revenue meter, power quality meter, water meter, air meter, gas meter, and steam meter.

11. An energy management device for managing the flow of energy in an energy distribution system, said energy management device for use in an energy management architecture for managing said energy distribution system, said energy management architecture comprising a network, said energy management device comprising:

a network interface operative to couple said energy management device

with said network;

an energy distribution system interface operative to couple said energy management device with said energy distribution system, said energy management device further operative to measure at least one energy management quantity via said energy distribution system interface;

a processor coupled with said network interface and said energy distribution system interface and operative to process said at least one energy management quantity to manage the flow of energy, and further operative to generate one of a power management command and power management data related thereto; and

wherein said network interface is further operative to receive said one of a power management command and power management data from said processor, incrementally generate an XML document comprising said one of a power management command and power management data, said XML document being generated as a plurality of segments, wherein each of said plurality of segments is communicated to said network as it is generated.

12. The energy management device of Claim 11 further comprising a display.

13. The energy management device of Claim 11 where said XML document is encoded into at least one of base64 format, Unicode UTF-8 format, Unicode UTF-16 format, ASCII, and Latin encoding format before said network interface facilitates transmission over said network.

14. The energy management device of Claim 11, said network interface being further operative to encrypt at least one of said plurality of segments.

15. The energy management device of Claim 11, said network interface being further operative to secure at least one of said plurality of segments.

16. The energy management device of Claim 11, said network interface being further operative to compress each of said plurality of segments.

17. The energy management device of Claim 11 where said plurality of segments are communicated using at least one of SMTP, MIME and HTTP protocols.

18. The energy management device of Claim 11 where said XML document further comprises at least one of a SOAP and wireless binary XML protocol.

19. The energy management device of Claim 11 where said one of a power management command and power management data further comprises data based on at least one of load profile data, energy data, power quality data, an alert message, status information and energy management configuration information, price, cost, temperature.

20. The energy management device of Claim 11 where said at least one energy management device comprises at least one of relay, electric meter, revenue meter, power quality meter, water meter, air meter, gas meter, and steam meter.

21. In an energy management device, a method of transmitting a communication from said energy management device over a network coupled with said energy management device, said method comprising:

generating a set of data to be communicated over said network as an XML document;

transforming each of said data into an XML format as it is generated; and

communicating each of said XML formatted data over said network as it is transformed;

releasing at least one resource utilized by said XML formatted data from said energy management device as it is communicated; and

repeating said transforming and said communicating until the entire said set of data has been communicated.

22. The method of Claim 21 further comprising measuring at least one quantity related to an energy distribution system, said set of data being generated based on said measuring.

23. In an energy management device, a method of receiving a communication from a network coupled with said energy management device, said method comprising:

receiving data comprising one of a plurality of portions of an XML document from said network;

as said data is received, determining when said received one of said plurality of portions comprises processable XML code; and

when enough data to process has been received, processing said portion to interpret said processable XML code contained therein; and

repeating said receiving, determining and processing until all of said XML document has been received.

24. The method of Claim 23, further comprising:

controlling said energy management device based on said interpretation of said processable XML code.

25. The method of Claim 23, further comprising:

validating said processable XML code.

26. The method of Claim 23, further comprising:

verifying the well-formedness of said processable XML code.

27. The method of Claim 23, wherein said repeating further comprises requesting a next of said plurality of portions.

28. In an energy management device, a method of transmitting a communication from said energy management device over a network coupled with said energy management device, said method comprising:

means for generating a set of data to be communicated over said network as an XML document;

means for transforming each of said data into an XML format as it is generated; and

means for communicating each of said XML formatted data over said network as it is transformed;

means for purging said XML formatted data from said energy management device as it is communicated; and

means for repeatedly actuating said means for transforming and said means for communicating until the entire said set of data has been communicated.

29. In an energy management device, a method of receiving a communication from a network coupled with said energy management device, said method comprising:

means for receiving data comprising one of a plurality of portions of an XML document from said network;

as said data is received, actuating means for determining when said received one of said plurality of portions comprises processable XML code; and

when enough data to process has been received, actuating means for processing said portion to interpret said processable XML code contained therein; and

repeatedly actuating said means for receiving, means for determining and means for processing until all of said XML document has been received.

30. An electrical power management architecture for managing an electrical power distribution system comprising:

a network;

at least one intelligent electronic device ("IED") coupled with a portion of said electrical power distribution system and further coupled with said network, each of said at least one IED operative to implement a power management function in conjunction with said portion of said electrical power distribution system, said power management function operative to respond to at least one power management command and generate power management data, each of said at least one IED comprising:

a first network interface operative to couple said at least one IED with said network and facilitate transmission of said power management data and receipt of said at least one power management command over said network; and

wherein said first network interface further comprises an

incremental XML processor operative to incrementally generate a first XML document based on said power management data for transmission over said network and receive a second incrementally generated XML document comprising said at least one power management command and interpret said second incrementally generated XML document to extract said at least one power management command;

said architecture further comprising:

a power management application coupled with said network and operative to receive and process said first incrementally generated XML document comprising said power management data from said at least one IED and incrementally generate said second XML document comprising said at least one power management command to said at least one IED to implement said power management function.

31. An energy meter for managing the flow of electrical energy in an electrical distribution system, said energy meter for use in an energy management architecture for managing said electrical distribution system, said energy management architecture comprising a network, said energy meter comprising:

a network interface operative to couple said energy meter with said network;

an electrical distribution system interface operative to couple said energy meter with said electrical distribution system, said energy meter further operative to measure at least quantity of said electrical distribution system via said electrical distribution system interface;

a processor coupled with said network interface and said electrical distribution system interface and operative to process said at least one quantity to manage the flow of electrical energy, and further operative to generate one of a power management command and power management data related thereto; and

wherein said network interface is further operative to receive said one of a power management command and power management data from said processor, incrementally generate an XML document comprising said one of a power

management command and power management data, said XML document being generated as a plurality of segments, wherein each of said plurality of segments is communicated to said network as it is generated.